Complete Summary

TITLE

Radiology: percentage of final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement.

SOURCE(S)

American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Radiology physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2009 Feb. 42 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement.

RATIONALE

Since the clinical decision-making is based on randomized trial evidence and degree of stenosis is an important element of the decision for carotid intervention, characterization of the degree of stenosis needs to be standardized. Requiring that

stenosis calculation be based on a denominator of distal internal carotid diameter or, in the case of duplex ultrasound, velocity measurements that have been correlated to angiographic stenosis calculation based on distal internal carotid diameter, makes the measure applicable to both imaging and duplex studies.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

...the North American Symptomatic Carotid Endarterectomy Trial (NASCET) method of calculating stenosis measurement should be employed when angiography is used to correlate ultrasound (US) findings. (Society of Radiologists in Ultrasound [SRU])

For patients with symptomatic atherosclerotic carotid stenosis greater than 70%, as defined using the NASCET criteria, the value of carotid endarterectomy (CEA) has been clearly established from the results of 3 major prospective randomized trials: the NASCET, the European Carotid Surgery Trial (ECST), and the Veterans Affairs Cooperative Study Program. Among symptomatic patients with transient ischemic attacks (TIAs) or minor strokes and high-grade carotid stenosis, each trial showed impressive relative and absolute risk reductions for those randomized to surgery. For patients with carotid stenosis less than 50%, these trials showed that there was no significant benefit of surgery. (American Heart Association/American Stroke Association Council on Stroke [AHA/ASA])

It is important to consider that the degree of carotid stenosis in ECST was measured differently than that in NASCET. The degree of carotid stenosis is significantly higher if calculated by the NASCET rather than the ECST method. In summary, it appears that patients with a recent TIA or nondisabling stroke with ipsilateral carotid stenosis benefit from surgery if the stenosis is greater than 50% as measured by the NASCET method; however, this benefit appears to be less pronounced in women. Recently symptomatic patients with greater than 70% stenosis as measured by the NASCET method can expect a far greater benefit from carotid endarterectomy. (American Heart Association [AHA])

PRIMARY CLINICAL COMPONENT

Carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram); stenosis measurement; distal internal carotid diameter

DENOMINATOR DESCRIPTION

All final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed

NUMERATOR DESCRIPTION

Final carotid imaging study reports that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Ancillary Services
Hospitals
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

All patients, regardless of age

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed

Exclusions
None

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Diagnostic Evaluation
Encounter

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Final carotid imaging study reports that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement*

*Definition: "Direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement" includes direct angiographic stenosis calculation based on the distal lumen as the denominator for stenosis measurement OR an equivalent validated method referenced to the above method (e.g., for duplex ultrasound studies, velocity parameters that correlate with anatomic measurements that use the distal internal carotid lumen as the denominator for stenosis measurement).

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #1: stenosis measurement in carotid imaging reports.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

Radiology Physician Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the American College of Radiology, Physician Consortium for Performance Improvement®, and National Committee for Quality Assurance

DEVELOPER

American College of Radiology
National Committee for Quality Assurance
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance

ADAPTATION

Measure was adapted from another source.

PARENT MEASURE

Stroke and Stroke Rehabilitation Physician Consortium for Performance Improvement Measurement Set - Measure #7: Carotid Imaging Reports. American Academy of Neurology/American College of Radiology/Physician Consortium for Performance Improvement®/National Committee for Quality Assurance; September 2006.

RELEASE DATE

2007 Oct

REVISION DATE

2009 Feb

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Radiology physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2007 Oct. 42 p.

SOURCE(S)

American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Radiology physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2009 Feb. 42 p.

MEASURE AVAILABILITY

The individual measure, "Measure #1: Stenosis Measurement in Carotid Imaging Reports," is published in the "Radiology Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on February 1, 2008. The information was verified by the measure developer on April 10, 2008. This NQMC

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